

### **Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1- 61 (Cancelled)

62. (Allowed) A circuit protection system for dissipating transients without the use of transorbs or metal oxide varistors which comprises:

a printed circuit board;

a surface mount component mounted on said printed circuit board, said surface component having first and second end caps, said first and second end caps each having a first edge;

a conductive trace on said printed circuit board having first and second opposed edges extending intermediate said first and second end caps, said first and second opposed edges being coplanar and thereby defining a plane, said plane intersecting said first edge of said first end cap and intersecting said first edge of said second end cap, said first edge of said trace being disposed in parallel spaced relation to said first edge of said first end cap and said second edge of said trace being disposed in parallel spaced relation to said first edge of said second end cap.

63. (Allowed) The circuit protection system as described in claim 62 wherein the dimension of the space intermediate

(1) said first edge of said trace and said first edge of said first end cap and

(2) said second edge of said trace and said first edge of said second end cap are both substantially equal to X.

64. (Allowed) The circuit protection system as described in claim 63 wherein said surface mount component has a height dimension  $t$  and  $X$  is less than  $t$ .

65. (Allowed) The circuit protection system as described in claim 63 wherein  $X$  is approximately .01 inch.

66. (Allowed) A circuit protection system for dissipating transients without the use of transorbs or metal oxide varistors which comprises:

a printed circuit board;

a first surface mount component mounted on said printed circuit board, said surface component having first and second end caps, said first and second end caps each having a first edge;

a second surface mount component mounted on said printed circuit board, said surface component having first and second end caps, said first and second end caps each having a first edge;

a conductive trace on said printed circuit board having first and second opposed edges extending intermediate said first and second end caps of said first surface mounted component, said first and second opposed edges being coplanar and thereby defining a plane, said plane intersecting said first edge of said first end cap of said first surface mounted component and intersecting said first edge of said second end cap of said first surface mounted component, said first edge of said trace being disposed in parallel spaced relation to said first edge of said first end cap of said first surface mounted component and said second edge of said trace is disposed in parallel spaced relation to said first edge of said second end cap of said first surface mounted component; and

said conductive trace on said printed circuit board having said first and second opposed edges extending intermediate said first and second end caps of said second surface mounted component, said plane intersecting said first edge of said first end cap of said second surface mounted component and intersecting said first edge of said second end cap of said second surface mounted component, said first edge of said trace being disposed in parallel spaced relation to said first edge of said first end cap of said second surface mounted component and said second edge of said trace being disposed in parallel spaced relation to said first edge of said second end cap of said second surface mounted component.

67. (Allowed) The circuit protection system as described in claim 66 wherein dimension of the space intermediate (1) said first edge of said trace and said first edge of said first end cap of said first surface mounted component and (2) said second edge of said trace and said first edge of said second end cap of said first surface mounted component, (3) said first edge of said trace and said first edge of said first end cap of said second surface mounted component and (4) said second edge of said trace and said first edge of said second end cap of said second surface mounted component are all substantially equal to X.

68. (Allowed) The circuit protection system as described in claim 65 wherein said surface mount component has a height dimension  $t$  and  $X$  is less than  $t$ .

69. (Allowed) The circuit protection system as described in claim 67 wherein  $X$  is approximately .01 inch.

70. (Allowed) The circuit protection system as described in claim 67 wherein the minimum spacing between the respective end caps of said first and second surface mounted components is at least three times the dimension  $X$ .

71. (Allowed) A circuit protection system for dissipating transients without the use of transorbs or metal oxide varistors which comprises:

a printed circuit board;

a first surface mount component mounted on said printed circuit board, said surface component having first and second end caps, said first and second end caps each having a first edge;

a second surface mount component mounted on said printed circuit board, said surface component having first and second end caps, said first and second end caps each having a first edge;

a first conductive trace on said printed circuit board having first and second opposed edges extending intermediate said first and second end caps of said first surface mounted component, said first and second opposed edges being coplanar and thereby defining a plane, said plane intersecting said first edge of said first end cap of said first surface mounted component and intersecting said first edge of said second end cap of said first surface mounted component, said first edge of said first trace being disposed in parallel spaced relation to said first edge of said first end cap of said first surface mounted component and said second edge of said first trace being disposed in parallel spaced relation to said first edge of said second end cap of said first surface mounted component;

said first conductive trace on said printed circuit board having said first and second opposed edges extending intermediate said first and second end caps of said second surface mounted component, said plane intersecting said first edge of said first end cap of said second surface mounted component and intersecting said first edge of said second end cap of said second surface mounted component, said first edge of said first trace being disposed in parallel spaced relation to said first edge of said first end cap of said second surface mounted

component and said second edge of said first trace being disposed in parallel spaced relation to said first edge of said second end cap of said second surface mounted component;

a third surface mount component mounted on said printed circuit board, said third surface component having first and second end caps, said first and second end caps each having a first edge;

a second conductive trace on said printed circuit board having first and second opposed edges extending intermediate said first and second end caps of said third surface mount component, said first and second opposed edges of said second conductive trace being coplanar and thereby defining a plane, said plane intersecting said first edge of said first end cap of said third surface mount component and intersecting said first edge of said second end cap of said third surface mount component, said first edge of said second trace being disposed in parallel spaced relation to said first edge of said first end cap of said third surface mount component and said second edge of said second trace being disposed in parallel spaced relation to said first edge of said second end cap of said third surface mount component.

72. (Allowed) The circuit protection system as described in claim 71 wherein dimension of the space intermediate (1) said first edge of said first trace and said first edge of said first end cap of said first surface mounted component, (2) said second edge of said first trace and said first edge of said second end cap of said first surface mounted component, (3) said first edge of said first trace and said first edge of said first end cap of said second surface mounted component and (4) said second edge of said first trace and said first edge of said second end cap of said second surface mounted component are all equal to X, (5) said first edge of said second trace and said first edge of said first end cap of said third surface mounted component, and (6) said second edge of said second trace

and said first edge of said second end cap of said third surface mounted component are all substantially equal to X.

73. (Allowed) The circuit protection system as described in claim 72 wherein each surface mount component has a height dimension t and X is less than t.

74. (Allowed) The circuit protection system as described in claim 72 wherein X is approximately .01 inch.

75. (Allowed) The circuit protection system as described in claim 71 wherein the minimum spacing between the respective end caps of said first and second surface mounted components is at least three times the dimension X.

76. (Allowed) A circuit protection system for dissipating transients without the use of transorbs or metal oxide varistors which comprises:

a printed circuit board;

a surface mount resistor mounted on said printed circuit board, said surface resistor having first and second end caps, said first and second end caps each having a first edge;

a conductive trace on said printed circuit board having first and second opposed edges extending intermediate said first and second end caps, said first and second opposed edges being coplanar and thereby defining a plane, said plane intersecting said first edge of said first end cap and intersecting said first edge of said second end cap, said first edge of said trace being disposed in parallel spaced relation to said first edge of said first end cap and said second edge of said trace being disposed in parallel spaced relation to said first edge of said second end cap.

77. (Allowed) The circuit protection system as described in claim 76 wherein dimension of the space intermediate (1) said first edge of said trace and said first edge of said first end cap and (2) said second edge of said trace and said first edge of said second end cap are both substantially equal to X.

78. (Allowed) The circuit protection system as described in claim 77 wherein said surface mount resistor has a height dimension t and X is less than t.

79. (Allowed) The circuit protection system as described in claim 78 wherein X is approximately .01 inch.

80. (Allowed) A circuit protection system for dissipating transients without the use of transorbs or metal oxide varistors which comprises:

a printed circuit board;

a first surface mount resistor mounted on said printed circuit board, said surface resistor having first and second end caps, said first and second end caps each having a first edge;

a second surface mount resistor mounted on said printed circuit board, said surface resistor having first and second end caps, said first and second end caps each having a first edge;

a conductive trace on said printed circuit board having first and second opposed edges extending intermediate said first and second end caps of said first surface mounted resistor, said first and second opposed edges being coplanar and thereby defining a plane, said plane intersecting said first edge of said first end cap of said first surface mounted resistor and intersecting said first edge of said second end cap of said first surface mounted resistor, said first edge of said trace being disposed in parallel spaced relation to said first edge of said first end cap

of said first surface mounted resistor and said second edge of said trace is disposed in parallel spaced relation to said first edge of said second end cap of said first surface mounted resistor; and

said conductive trace on said printed circuit board having said first and second opposed edges extending intermediate said first and second end caps of said second surface mounted resistor, said plane intersecting said first edge of said first end cap of said second surface mounted resistor and intersecting said first edge of said second end cap of said second surface mounted resistor, said first edge of said trace being disposed in parallel spaced relation to said first edge of said first end cap of said second surface mounted resistor and said second edge of said trace being disposed in parallel spaced relation to said first edge of said second end cap of said second surface mounted resistor.

81. (Allowed) The circuit protection system as described in claim 80 wherein dimension of the space intermediate (1) said first edge of said trace and said first edge of said first end cap of said first surface mounted resistor and (2) said second edge of said trace and said first edge of said second end cap of said first surface mounted resistor, (3) said first edge of said trace and said first edge of said first end cap of said second surface mounted resistor and (4) said second edge of said trace and said first edge of said second end cap of said second surface mounted resistor are all substantially equal to X.

82. (Allowed) The circuit protection system as described in claim 81 wherein said surface mount resistor has a height dimension t and X is less than t.

83. (Allowed) The circuit protection system as described in claim 82 wherein X is approximately .01 inch.



84. (Allowed) The circuit protection system as described in claim 81 wherein the minimum spacing between the respective end caps of said first and second surface mounted resistors is at least three times the dimension X.

85. (Allowed) A circuit protection system for dissipating transients without the use of transorbs or metal oxide varistors which comprises:

a printed circuit board;

a first surface mount resistor mounted on said printed circuit board, said surface resistor having first and second end caps, said first and second end caps each having a first edge;

a second surface mount resistor mounted on said printed circuit board, said surface resistor having first and second end caps, said first and second end caps each having a first edge;

a first conductive trace on said printed circuit board having first and second opposed edges extending intermediate said first and second end caps of said first surface mounted resistor, said first and second opposed edges being coplanar and thereby defining a plane, said plane intersecting said first edge of said first end cap of said first surface mounted resistor and intersecting said first edge of said second end cap of said first surface mounted resistor, said first edge of said first trace being disposed in parallel spaced relation to said first edge of said first end cap of said first surface mounted resistor and said second edge of said first trace being disposed in parallel spaced relation to said first edge of said second end cap of said first surface mounted resistor;

said first conductive trace on said printed circuit board having said first and second opposed edges extending intermediate said first and second end caps of said second surface mounted resistor, said plane intersecting said first edge of

said first end cap of said second surface mounted resistor and intersecting said first edge of said second end cap of said second surface mounted resistor, said first edge of said first trace being disposed in parallel spaced relation to said first edge of said first end cap of said second surface mounted resistor and said second edge of said first trace being disposed in parallel spaced relation to said first edge of said second end cap of said second surface mounted resistor;

a third surface mount resistor mounted on said printed circuit board, said third surface resistor having first and second end caps, said first and second end caps each having a first edge;

a second conductive trace on said printed circuit board having first and second opposed edges extending intermediate said first and second end caps of said third surface mount resistor, said first and second opposed edges of said second conductive trace being coplanar and thereby defining a plane, said plane intersecting said first edge of said first end cap of said third surface mount resistor and intersecting said first edge of said second end cap of said third surface mount resistor, said first edge of said second trace being disposed in parallel spaced relation to said first edge of said first end cap of said third surface mount resistor and said second edge of said second trace being disposed in parallel spaced relation to said first edge of said second end cap of said third surface mount resistor.

86. (Allowed) The circuit protection system as described in claim 85 wherein dimension of the space intermediate (1) said first edge of said first trace and said first edge of said first end cap of said first surface mounted resistor, (2) said second edge of said first trace and said first edge of said second end cap of said first surface mounted resistor, (3) said first edge of said first trace and said first edge of said first end cap of said second surface mounted resistor and (4) said second edge of said first trace and said first edge of said second end cap of said second surface mounted resistor are all equal to X, (5) said first edge of said

second trace and said first edge of said first end cap of said third surface mounted resistor, and (6) said second edge of said second trace and said first edge of said second end cap of said third surface mounted resistor are all substantially equal to X.

87. (Allowed) The circuit protection system as described in claim 86 wherein each surface mount resistor has a height dimension  $t$  and  $X$  is less than  $t$ .

88. (Allowed) The circuit protection system as described in claim 86 wherein  $X$  is approximately .01 inch.

89. (Allowed) The circuit protection system as described in claim 71 wherein the minimum spacing between the respective end caps of said first and second surface mounted resistors is at least three times the dimension  $X$ .